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| APPLICATION NO.   | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|---------------------|------------------|
| 10/542,769  | 03/06/2006  | Daniel Butzke        | WEICKM-0046         | 5398             |
| 23599   | 7590        | 10/17/2006           | EXAMINER            |                  |
| MILLEN, WHITE, ZELANO & BRANIGAN, P.C.<br>2200 CLARENDON BLVD.<br>SUITE 1400<br>ARLINGTON, VA 22201 |             |                      | MEAH, MOHAMMAD Y    |                  |
|   |             |                      | ART UNIT            | PAPER NUMBER     |
|   |             |                      | 1652                |                  |

DATE MAILED: 10/17/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

|                              |                                      |                                      |  |
|------------------------------|--------------------------------------|--------------------------------------|--|
| <b>Office Action Summary</b> | <b>Application No.</b><br>10/542,769 | <b>Applicant(s)</b><br>BUTZKE ET AL. |  |
|                              | <b>Examiner</b><br>Mohammad Meah     | <b>Art Unit</b><br>1652              |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) \_\_\_\_ is/are pending in the application.  
4a) Of the above claim(s) 1 and 51-104 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_ is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 1 and 51-104 are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |  |
|---|--|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)            |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date ____ | 6) <input type="checkbox"/> Other: ____  |

## DETAILED ACTION

The claims 1 and 51-104 are pending in the instant office action.

### *Election/Restrictions*

Restriction is required under 35 U.S.C. 121 and 372.

This application contains the following inventions or groups of inventions, which are not so linked as to form a single general inventive concept under PCT rule 13.1.

In accordance with 37 CFR 1.499, applicant is required, in response to this action, to elect a single invention to which the claims must be restricted.

Group 1. Claims 1, 51-57, 64-70, drawn to isolated polypeptide comprising the amino acid sequence of SEQ ID NO: 2 and fragments thereof.

Group 2. Claims 1, 51-57, 64-70, drawn to isolated polypeptide comprising the amino acid sequence of SEQ ID NO: 4 and fragments thereof.

Group 3. Claims 1, 51-57, 64-70, drawn to isolated polypeptide comprising the amino acid sequence of SEQ ID NO: 6 and fragments thereof.

Group 4. Claims 58-62, drawn to isolated DNA comprising the nucleic acid sequence of SEQ ID NO: 1, vector and transformed cell.

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Group 5. Claims 58-62, drawn to isolated DNA comprising the nucleic acid sequence of SEQ ID NO: 3, vector and transformed cell.

Group 6. Claims 58-62, drawn to isolated DNA comprising the nucleic acid sequence of SEQ ID NO: 5, vector and transformed cell.

Group 7. Claim 63, drawn to antibody to polypeptide comprising the amino acid sequence of SEQ ID NO: 2 and fragments thereof.

Group 8. Claim 63, drawn to antibody to polypeptide comprising the amino acid sequence of SEQ ID NO: 4 and fragments thereof.

Group 9. Claim 63, drawn to antibody to polypeptide comprising the amino acid sequence of SEQ ID NO: 6 and fragments thereof.

Group 10. Claims 71, 75, 79, drawn to method of diagnosing or treating diseases using polypeptide of SEQ ID NO: 2.

Group 11. Claims 71, 75, 79, drawn to method of diagnosing or treating diseases using polypeptide of SEQ ID NO: 4.

Group 12. Claims 71, 75, 79, drawn to method of diagnosing or treating diseases using polypeptide of SEQ ID NO: 6.

Group 13. Claims 72-73, 76-77 and 80-81, drawn to method of diagnosing or treating diseases using DNA of SEQ ID NO: 1. or transformed cell containing said DNA.

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Group 14. Claims 72-73, 76-77 and 80-81, drawn to method of diagnosing or treating diseases using DNA of SEQ ID NO: 3. or transformed cell containing said DNA.

Group 15. Claims 72-73, 76-77 and 80-81, drawn to method of diagnosing or treating diseases using DNA of SEQ ID NO: 5. or transformed cell containing said DNA.

Group 16. Claims 74, 78, 82, drawn to method of diagnosing or treating diseases using antibody to polypeptide comprising the amino acid sequence of SEQ ID NO: 2 and fragments thereof.

Group 17. Claims 74, 78, 82, drawn to method of diagnosing or treating diseases using antibody to polypeptide comprising the amino acid sequence of SEQ ID NO: 4 and fragments thereof.

Group 18. Claims 74, 78, 82, drawn to method of diagnosing or treating diseases using antibody to polypeptide comprising the amino acid sequence of SEQ ID NO: 6 and fragments thereof.

Group 19. Claims 83-92, drawn to method of modulating the activity of target substance or screening target substance using polypeptide comprising the amino acid sequence of SEQ ID NO: 2 and fragments thereof.

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Group 20. Claims 83-92, drawn to method of modulating the activity of target substance or screening target substance using polypeptide comprising the amino acid sequence of SEQ ID NO: 4 and fragments thereof.

Group 21. Claims 83-92, drawn to method of modulating the activity of target substance or screening target substance using polypeptide comprising the amino acid sequence of SEQ ID NO: 6 and fragments thereof.

Group 22. Claim 93, drawn to pharmaceutical composition comprising the screened target substance screened by the method of group 19.

Group 23. Claim 93, drawn to pharmaceutical composition comprising the screened target substance screened by the method of group 20.

Group 24. Claim 93, drawn to pharmaceutical composition comprising the screened target substance screened by the method of group 21.

Group 25, claims 94-100, drawn to RNA molecules comprising various polynucleotide sequences.

Group 26, Claims 101, 103-14, drawn to method of diagnosing or treating diseases using target substance screened according to claim 93 using polypeptide comprising the amino acid sequence of SEQ ID NO: 2 and fragments thereof.

Group 27, Claims 101, 103-14, drawn to method of diagnosing or treating diseases using target substance screened according to claim 93 using polypeptide comprising the amino acid sequence of SEQ ID NO: 2 and fragments thereof.

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Group 28, Claims 101, 103-14, drawn to method of diagnosing or treating diseases using target substance screened according to claim 93 using polypeptide comprising the amino acid sequence of SEQ ID NO: 2 and fragments thereof.

Group 29. claim 102, drawn to pharmaceutical composition comprising various polypeptides.

The inventions listed as Groups 1-29 do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons:

The only technical feature linking group 1-29 appears to be that they all relate to polypeptide fragment of SEQ ID Nos: 2 or 4 or 6. The polypeptide fragment of SEQ ID Nos: 2 or 4 or 6 does not constitute a "special technical feature" as defined by PCT Rule 13.2, because it does not claim a feature which defines a contribution over the prior art as a type polypeptide fragment of SEQ ID Nos: 2 or 4 or 6 is taught by the prior art such as Petzelt et al. (WO 97//16457).

Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement is traversed (37 CFR 1.143).

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim

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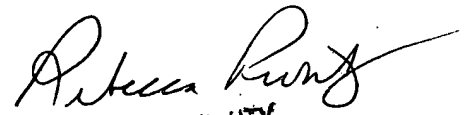
remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mohammad Meah whose telephone number is 571-272-1261. The examiner can normally be reached on 8:30-5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ponnathapu Achutamurthy can be reached on 571-272-0928. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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